

REMARKS / ARGUMENTS:

Claims 2 and 39 have been canceled.

Claims 1, 12 and 36 have been amended to describe the novel formulation, composition, and method, respectively, as involving a particle for controlled release of a fungicide, wherein the particle is solid and generally spherical and is from 0.1 to 200 microns in size and comprises a triazole fungicide dispersed in a polymer matrix, wherein the fungicide-to-polymer weight ratio is from about 1:99 to about 1:1, and wherein the triazole fungicide is selected from the group consisting of bitertanol, bromuconazole, cyproconazole, difenoconazole, epoxiconazole, fenbuconazole, fluquinconazole, flusilazole, flutriafol, hexaconazole, imibenconazole, metconazole, myclobutanil, penconazole, propiconazole, tebuconazole, tetraconazole, triadimefon, triadimenol, and triticonazole.

Support for the several features of the novel particles is found in the original specification and claims at least at the following locations:

“particle for the controlled release of a fungicide”: page 4, lines 5 – 9 and 29 – 31.

“solid and generally spherical”: page 7, lines 8 – 14. Also, it is believed that the several methods for making the novel matrix microparticles that are described in the specification at page 38, line 15 – page 40, line 15, would be recognized by practitioners who are skilled in the appropriate art to result in the formation of generally spherical particles.

“from 0.1 to 200 microns in size: page 33, lines 19 – 22.

“comprise a triazole fungicide dispersed in a polymer matrix”; page 4, lines 5 – 9 and 29 – 31.

“wherein the fungicide-to-polymer weight ratio is from about 1:99 to about 1:1”; these ratios are calculated from the relative amounts of fungicide and matrix polymer material that are described at page 17, lines 25 – 30;

The specific members of the group of triazole fungicides that is listed are described at least in original claim 2.

Claims 1, 3 – 8, 12 – 18, 36 – 38 and 40 - 51 are in the case.

No new matter has been added.

Rejection of claims 1 – 8, 12 – 18 and 36 – 51 under 35 USC §112, first paragraph, as

not being enabled for “conventional” and “fast-release” formulations, or for presently claimed formulations having 50% reduction of phytotoxicity with respect to such “conventional, fast-release” formulations.

The Office argued that the rejected claims are not enabled because they require comparison of phytotoxicity to undefined “conventional” and indefinite “fast-release” formulations of the triazole fungicides. Also, the Office has argued that an enormous amount of testing is required to determine which claimed formulations achieve a 50% reduction of phytotoxicity.

The claims have been amended to delete the terms that have been objected to. Therefore, it is respectfully requested that the present ground of rejection be reconsidered and withdrawn.

Rejection of claims 1 – 3, 7, 8, 12, 15, 17, 18, 36, 39 and 43 – 51 under 35 USC §102(e) over U.S. Patent No. 5,914,295 to Hoffman *et al.*

The Office has argued that the Hoffman *et al.* patent anticipates the present claims because, among other things, it describes the claimed particle size.

During the interview of November 20, 2003, the differences between the implantable molded articles of Hoffman *et al.* and the presently claimed matrix microparticles were discussed in detail. To recap this discussion, the present particles are small (0.1 to 200 micron) generally spherical particles in which is dispersed one or more of the listed triazole fungicides. The Hoffman *et al.* implantable molded articles, on the other hand, are significantly larger devices, in which particles of active ingredients can be distributed. The Office has pointed to col. 9, lines 17 – 28 of the Hoffman *et al.* patent to show the anticipation of the particle size of the presently claimed matrix microparticles. However, at that location, Hoffman *et al.* are describing the size of particles of active ingredients that can be distributed within their implantable articles. In contrast, the particle size description of the present claims refers to the size of the entire matrix microparticle, rather than the size of particles that can be included within. It is maintained, therefore, that the Hoffman *et al.* patent does not teach or suggest a matrix microparticle having a size of from 0.1 to 200 microns, within which is distributed a particular triazole fungicide, as described in the present claims.

Accordingly, it is maintained that the present claims cannot be anticipated by

Hoffman *et al.*, and it is respectfully requested that the present ground of rejection be reconsidered and be withdrawn.

Rejection of claims 1 – 8, 12 – 18 and 36 – 51 under 35 USC §103(a) as obvious over U.S. Patent No. 5,914,295 to Hoffman *et al.* in view of known triazoles.

This ground of rejection appears to be based on the argument that, because the claimed triazoles are all known fungicides, it would have been obvious to utilize the triazole in known formulations, such as those of Hoffman *et al.*

As discussed above, the Hoffman *et al.* patent does not describe the size of the present matrix microparticles, which is a feature of the claimed invention, nor does it describe any one of the triazole fungicides to which the present claims are limited. The Office has argued on page 3 of the Action that the unpredictability of the art of the present invention is very high. The Applicant maintains, therefore, that the Hoffman *et al.* patent, alone or in combination with any other cited reference, would not have suggested to one of ordinary skill to select a specific triazole fungicide (as described in the claimed list of triazoles) and to disperse it within a matrix microparticle of a the claimed size range, when the Hoffman *et al.* patent provided no guidance for either feature. It is maintained that any motivation to provide either of these two features that could be found in the cited art references, without recourse to the present specification, falls well under the standard set forth under 35 USC §103(a), that such motivation must raise in the skilled practitioner a reasonable expectation of success. At most, the cited art may raise a suggestion to try, but such motivation falls short of supporting a *prima facie* case of obviousness under 35 USC §103(a).

It is respectfully requested, therefore, that the present ground of rejection be reconsidered and be withdrawn.

Rejection of claims 1 – 3, 5, 7, 8, 12 – 18, 36 – 39, 41, 43, 45, 46, 48 and 50 under 35 USC §102(e) as anticipated by U.S. Patent No. 5,719,103 to Dao *et al.*

The Office has maintained the rejection of the listed claims as anticipated by U.S. Patent No. 5,719,103 to Dao *et al.*, and has argued that Dao *et al.* teaches powders of 100 micron size, in which certain triazole fungicides and polymers are used, which also can be used in the presently claimed matrix microparticles. The Office concludes that

since the triazoles and polymers of the present invention fall within the compositions described by Dao *et al.*, the same results must follow.

The Applicant maintains, however, that the powder formulations of Dao *et al.* and the matrix microparticles of the present invention are significantly different in physical form and also in results. The Dao *et al.* patent teaches powder formulations comprising a blend of dry ingredients, rather than matrix microparticles as described in the present claims. The physical structure of these powders is different from the present matrix microparticles in that the polymers of Dao *et al.* are included to enhance the tendency of the powder to stick to the plant to which it is applied, rather than as matrix polymers within which the triazole fungicides are dispersed, as in the present formulation.

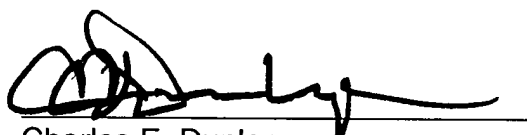
Accordingly, it is maintained that the Dao *et al.* patent cannot teach or suggest the presently claimed matrix microparticles, and it is respectfully requested that the present ground for rejection be reconsidered and withdrawn.

Request for reconsideration:

It is respectfully requested that the amendments that are requested above be entered into the case and that the claims be re-examined in view of the present amendments and the reasons that are discussed above and be found to be allowable. If one or all of the claims are deemed to not be allowable, the Examiner is invited to call the undersigned attorney at the number given below for resolution of any remaining issues.

Respectfully requested,  
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